

We claim:

1. An assembly adapted for use in mining operations and particularly an underground self-advancing roof support system, said assembly comprising:
  - a hydraulic component;
  - a plurality of actuators and/or sensors, each having a housing and adapted for communication with a control unit via a data transmission system, each actuator configured to actuate a respective function of the hydraulic component, and/or each sensor configured to measure the hydraulic state of a respective variable of the hydraulic component or another measurable variable associated with said self-advancing roof support system;
  - a plurality of reader units, each said unit associated with a corresponding actuator or sensor, each said reader unit disposed proximate said corresponding actuator or sensor; and
  - a plurality of information elements, each information element being associated with a particular function or measuring point of the hydraulic component, information in each information element being readable by a corresponding reader unit and transmittable to the control unit.
2. An assembly according to claim 1, wherein each said reader unit comprises a transmitting module and a receiving module.
3. An assembly according to claim 2, wherein said transmitting module and/or said receiving module comprises a coil.
4. An assembly according to claim 1, wherein each said information element is a transmitter or transponder.
5. An assembly according to claim 1, wherein said plurality of reader units are adapted for transmitting and/or receiving electromagnetic waves.
6. An assembly according to claim 1, wherein each said information element is inductively readable and/or is provided with an integrated receiving coil.

7. An assembly according to claim 1, wherein each said reader unit is in communication with an electronic circuit, said circuit including a microcontroller and/or evaluating electronics and control electronics.
8. An assembly according to claim 1, wherein each said reader unit is sealed in casting compound and secured to said corresponding actuator.
9. An assembly according to claim 1, wherein each said information element is secured within a receiving recess defined in said hydraulic component and sealed in casting compound.
10. An assembly according to claim 1, wherein said hydraulic component is a valve block defining a plurality of receiving holes for hydraulic switching valves, and each information element of said plurality of information elements is associated with a respective receiving hole or switching valve.
11. An assembly according to claim 1, wherein said data-transmission system is a BUS or an CAN BUS.
12. An assembly according to claim 1 wherein said control unit and/or said plurality of actuators have a digital interface.
13. An electro-hydraulic assembly particularly adapted for use with an underground self-advancing roof support as utilized in mining operations, said assembly comprising:
  - a valve body defining a plurality of recesses adapted for receiving and retaining hydraulic valves;
  - a plurality of hydraulic valves, each said valve disposed in a respective recess defined in said valve body;
  - a plurality of actuators, each said actuator in operable engagement with a respective valve of said plurality of valves;
  - a plurality of information elements, each said element disposed proximate to a respective valve and adapted to identify said valve;
  - a plurality of reader units, each said unit in communication with a

respective information element and adapted to transmit information concerning the identity of said respective valve by said information element.

14. The assembly of claim 13 further comprising:

a control unit adapted to receive one or more input signals and provide an output signal in response thereto; and

a data transmission system providing communication between said plurality of reader units and said control unit, said data transmission system serving to transmit information of said identities of said valves, to said control unit.

15. The assembly of claim 13 further comprising:

a hydraulic component;

a sensor in communication with said hydraulic component and adapted to measure a hydraulic state of said component;

another information element disposed proximate to said hydraulic component and adapted to identify said hydraulic component; and

another reader unit adapted to transmit information concerning the identity of said hydraulic component by said other information element.

16. The assembly of claim 13 wherein said communication between said reader units and said information elements is inductive communication.

17. The assembly of claim 13 wherein each said reader unit is disposed on a corresponding actuator and sealed thereon.

18. The assembly of claim 13 wherein each said information element is disposed within a corresponding recess defined in said valve body and sealed therein.

19. An electro-hydraulic assembly for use with an underground self-advancing support for mining, said assembly comprising:

a hydraulic body defining a first set of recesses and a second set of recesses;

at least one hydraulic control valve disposed in one of said first set of recesses of said hydraulic body;

at least one actuator configured to actuate said at least one hydraulic control valve;

at least one information element disposed in one of said second set of recesses, said information element configured to provide information as to the identity of said valve disposed in said hydraulic body; and

at least one reader unit in communication with said information element and adapted to transmit said information as to the identity of said valve disposed in said hydraulic body.